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The Big Bang Was Not the Beginning, but a Repeating Pattern of Expansion and Contraction of the Spacetime

Authors: Amrit Ladhani

Abstract: The cyclic universe theory is a model of cosmic evolution according to which the universe undergoes endless cycles of expansion and cooling, each beginning with a "big bang" and ending in a "big crunch". In this paper, we propose a unique property of Space-time. This particular and marvelous nature of space shows us that space can stretch, expand, and shrink. This property of space is caused by the size of the universe change over time: growing or shrinking. The observed accelerated expansion, which relates to the stretching of Shrunk space for the new theory, is derived. This theory is based on three underlying notions: First, the Big Bang is not the beginning of Space-time, but rather, at the very beginning fraction of a second, there was an infinite force of infinite Shrunk space in the cosmic singularity that force gave rise to the big bang and caused the rapidly growing of space, and all other forms of energy are transformed into new matter and radiation and a new period of expansion and cooling begins. Second, there was a previous phase leading up to it, with multiple cycles of contraction and expansion that repeat indefinitely. Third, the two principal long-range forces are the gravitational force and the repulsive force generated by shrink space. They are the two most fundamental quantities in the universe that govern cosmic evolution. They may provide the clockwork mechanism that operates our eternal cyclic universe. The universe will not continue to expand forever; no need, however, for dark energy and dark matter. This new model of Space-time and its unique properties enables us to describe a sequence of events from the Big Bang to the Big Crunch.

Keywords: dark matter, dark energy, cosmology, big bang and big crunch

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